DOCUMENT RESUME

ED 458 081 SE 062 958

TITLE Published Science, Mathematics, and Technology Programs

Which Are Fully Aligned with Vermont's Framework of

Standards and Learning Opportunities.

INSTITUTION

Vermont Inst. for Science, Math, and Technology, Montpelier.

SPONS AGENCY

National Science Foundation, Arlington, VA.

PUB DATE

1999-00-00

NOTE

11p.

AVAILABLE FROM

Vermont Institute for Science, Math, and Technology,

Dillingham Hall, 7 West Street, Montpelier, VT 05602. Tel:

802-224-9025. For full text: http://www.vismt.org.

PUB TYPE

Guides - Non-Classroom (055) -- Reference Materials -

General (130)

EDRS PRICE

MF01/PC01 Plus Postage.

DESCRIPTORS

*Academic Standards; Elementary Secondary Education; *Mathematics Education; Program Effectiveness; *Program

Evaluation; *Science Education; *State Standards;

*Technology Education

IDENTIFIERS

*Vermont

ABSTRACT

This publication presents science, mathematics, and technology programs that are fully aligned with Vermont's Framework of Standards and Learning Opportunities. It also identifies elementary, middle, and high school programs that incorporate content and best practices as identified by the Vermont framework. The materials in the accompanying list were reviewed by a team of Vermont classroom teachers from 1996 through 1998. Over the three year period, team members were instrumental in devising the rubrics used for review in addition to their role in reviewing individual programs for alignment. Each team member received training in the use of the review criterion and scoring rubrics to develop consistency between reviews. (ASK)



PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

D. Harris

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

U.S. DEPARTMENT OF EDUCATION
Office of educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)
This document has been reproduced as
received from the person or organization

originating it.

Minor changes have been made to improve reproduction quality.

Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

VERMONT INSTITUTE FOR SCIENCE, MATH, AND TECHNOLOGY



PUBLISHED SCIENCE, MATHEMATICS, AND TECHNOLOGY PROGRAMS

Which Are Fully Aligned With

VERMONT'S FRAMEWORK OF STANDARDS AND LEARNING OPPORTUNITIES



he materials included in the accompanying list were reviewed by a team of Vermont classroom teachers from 1996 through 1998. Over the three year period, team members were instrumental in devising the rubrics used for review in addition to their role in reviewing individual programs for alignment. Each team member received training in the use of the review criterion and scoring rubrics to develop consistency between reviews. Without the help of the following individuals, this work would not have been possible.

1997-8 Review Team

Ken McCaffrey, Brattleboro UHS
Linda Barker, West Rutland School
Pat Chamberlin, Windhall Elementary
Dennis Ferrari, Burlington HS
Robert Gervais, Bakersfield Elementary
Rick Mallon, Blue Mountain UHS
Kathy Marcoux, Bennington Elementary
Jean McKenny, Consultant
Alan Montague Otter Valley UHS
Robert Sargent, Waits River Valley
Norma Twombley, Miller's Run
Laurie Wight, H.O. Wheeler
Betty Young, Flood Brook

1996-7 Review Team

Ginger Anderson, Dept. of Forest, Parks, and Recreation Mark Chaplin, U-32 HS Chris Ditmeyer, U-32 HS Anne Frost, S. B. Central Barbara LaPointe, Waterbury Elementary Tracy LaVallee, S. B. Central Janey Malloy, U-32 HS Susan Ojala, Fairlee Elementary Scott Pennington, IBM

Project Coordinator

Jim Abrams, VISMT

Special thanks is accorded to these individuals for help in additional capacities:

Mark Chaplin, U-32 HS
Josh Kitlas, VISMT
Don Lapointe
Tracy LaVallee, S. B. Central
Judy Reposa, VISMT
Deborah Post, U-32 HS
Eric Rhomberg, Brattleboro UHS



Vermont Educators,

Vermont's Framework of Standards and Learning Opportunities recommends numerous changes in content, assessment, and instruction in Vermont classrooms. The changes in topics and recommended practices are both small and large. Combined with the practice of "action planning" based on assessments, these changes easily comprise the largest and most significant reform in the history of math and science education in Vermont.

These recommendations require significant changes in the classroom revised lesson plans, new materials, and changes in instructional techniques to align with the Framework and provide continuity with other classrooms and grades throughout the system. The purchase of new curricula that reflect the new national and state standards can save teachers a significant amount of time. But there are many programs available from countless publishers, including a growing number which proclaim they align with new standards. Which of these claims are valid?

In the last three years VISMT, with the help of a team of 24 Vermont teachers, has examined publisher's claims and reviewed program materials (of a year or more in length), looking for those that align fully with Vermont's Framework. In this process, we have found that most published materials currently available on the market today fall into three categories:

NO ALIGNMENT

materials written without any attention to the standards. Commonly, these
materials are ones written before national mathematics and science standards
were adopted. There are many, however, that were written in the last five years.



PARTIALLY ALIGNED

 materials written to address only the new content standards. In failing to implement best practices in equity, assessment, and pedagogy these materials fall far short of implementing much of the intent of standards reform.

PARTIALLY ALIGNED

 materials incorporating both the content standards and best practices (the "Learning Opportunities" in the Vermont Framework). These materials are listed on the following pages. We believe that this list is complete, effective October 1998.

Regardless of the excellence of the materials on the accompanying pages, they should not be exclusively relied upon to support classroom changes. Effective use of these materials requires a multiyear multifaceted professional development program that supports classroom teachers in teaching new content and using new assessments and pedagogy. Schools seeking help in making the changes to standards-based math, science, and technology education should contact VISMT (244-8768)

* For information about VISMT's review process, to view copies of the detailed reviews for individual programs on the list, and for helpful information about the programs themselves (such as schools using the programs, comparative costs, etc.) visit VISMT's web site at http://www.vismt.org Click on Program Areas, then click on Curriculum.





Fully Aligned SCIENCE, MATHEMATICS, AND TECHNOLOGY PROGRAMS

Elementary Science	Meddle School Science	HIGH SCHOOL SCIENCE Active Physics*	
♦ DASH	♦ FACETS		
♦ FOSS*	♦ FAST	 Applications in Biology/Chemistry Biology: A Community Context* 	
♦ Insights*	♦ Integrated Science		
♦ Science & Technology for Children*	♦ Integrated Math, Science, & Technology (IMaST)*		
♦ Science for Life and Living*	♦ Middle School Science & Technology•	♦ BSCS Biology: A Human Approach•	
	♦ Prime Science (grades 6-10)*	♦ ChemCom: Chemistry in the	
	♦ Science 2000* Science Interactions Community* Insights in Biolog	· ·	
		♦ Prime Science (grades 6-10)*	
		♦ Science Links	

- * The most recent generation of NSF funded and recommended programs.
- ** Chem Com is considered to have 'some' alignment with the Framework. If adopted we feel it could be reasonably supplemented to be brought into good alignment.





Elementary Mathematics	MATHEMATICS ◆ Connected Mathematics* ◆ Interactive Mathematics ◆ Integrated Math, Science, & Technology (IMaST)* ◆ MathThematics (STEM)* ◆ Mathematics in Context* ◆ Mathscape: Seeing and Thinking Mathematically ◆ Visual Math	High School Mathematics	
MATHEMATICS ♦ Box It Or Bag It Mathematics ♦ Everyday Math* ♦ Investigations in Number, Data, & Space* ♦ Mathland ♦ Math Trailblazers* ♦ Opening Eyes to Mathematics		 ♦ Calculus: Concepts and Applications ♦ Contemporary Mathematics in Context* ♦ Discovering Geometry ♦ Integrated Math (SIMMS): A Modeling Approach Using Technology* ♦ Interactive Mathematics Program (IMP)* ♦ Math Connections* ♦ Mathematics: Modeling our World* ♦ Pacesetter Mathematics: Precalculus Through Modeling 	
	Middle School	High School	

TECHNOLOGY

♦ Technology

November 1, 1998

TECHNOLOGY

♦ Technology







PUBLISHERS

The names and numbers on this list are subject to frequent change. If you cannot reach the person NOTE: indicated, contact the publisher's customer service department or connect to VISMT web site at URL http://www.vismt.org/pub/PubList.pdf> for the most up to date contact information.

CAROLINA BIOLOGICAL SUPPLY COMPANY

SCIENCE & TECHNOLOGY FOR CHILDREN

(STC) (Elementary Science)

contact: Gena Wofford

phone: 1-800 227-1150 Ext. 5265

web address:

www.carolina.com/STCpg.htm

COLLEGE BOARD

PACESETTER MATHEMATICS: PRECALCULUS

THROUGH MODELING (High School Mathematics)

contact: Steven Green phone: 1-212-713-8302

web address: www.collegeboard.org

CREATIVE PUBLICATIONS

MATHLAND (Elementary Mathematics) MATHSCAPE: SEEING AND THINKING

MATHEMATICALLY (Middle School Mathematics)

developer's web address: www.edc.org/mathscape

contact: Bill Hartney

phone: 1-781 826-5392 or 1-800-537-4740 ext 4913

web address:

www.creativepublications.com/

mathScape/mathscape_frameSet.html

DECISION DEVELOPMENT CORPORATION

SCIENCE 2000 (Middle School Science)

contact: Jeff Carter

address: 2680 Bishop Drive, San Ramon, CA 94583

phone: 1-800 835-4332

fax: 1-510 830-0830 e-mail: ddc2000@aol.com

web address: www.ddc2000.com

DELTA EDUCATION

FULL OPTION SCIENCE SYSTEM (FOSS)

(Elementary Science)

contact: Lisa Wood

phone: 1-978-433-9781

fax: 1-978 433-6790

web address: www.delta-ed.com

ENCYCLOPEDIA BRITTANNICA

MATHEMATICS IN CONTEXT

(Middle School Mathematics)

contact: Jim Burnette

phone: 1-603-585-0359

web address: www.eb.com







EVERYDAY LEARNING CORPORATION

EVERYDAY MATHEMATICS

(Elementary Mathematics)
contact: Rosanne O'Donnell
address: 61 Captain Joshua Lane,

Norwell, MA 02061 phone: 1-781 659-7639

CONTEMPORARY MATHEMATICS IN CONTEXT

(High School Math) developer's web address:

www.wmich.edu/math-stat/cpmp

contact: Tom Benz phone: 1-603-595-2861

web address: www.everydaylearning.com

GLENCOE/MCGRAW-HILL

INTERACTIVE MATHEMATICS

(Middle School Mathematics)

INTEGRATED MATH, SCIENCE, AND

TECHNOLOGY (IMaST)

(Middle School Math)

SCIENCE INTERACTIONS

(Middle School Science)

TECHNOLOGY (Thode)

(Middle and High School Technology)

contact: Richard Seefeldt

phone: 1-800 297-4638 (access code: 17)

e-mail: RSGlencoe@Berk.com web address: www.glencoe.com

HOUGHTON MIFFLIN COMPANY (School Division: McDougal Littell)

MATHTHEMATICS (STEM)

(Middle School Mathematics)

As of 8/24/98 there is no assigned representative.

For assistance, contact the publisher at:

phone: 1-800 323-5435 or:

1-800 733-2828

web addresses: www.mcdougallittell.com

or: www.hmco.com developer's web address: www.mlmath.com

IT'S ABOUT TIME

ACTIVE PHYSICS (High School Science)

web address: www.activephysics.com

MATH CONNECTIONS

(High School Math)
developer's web address:
www.mathconnections.com

web address: www.mathconnections.com

contact: Chris Fikis

phone: 1-888-698-8463 ext 531 web address: www.itsabouttime.com





KENDALL HUNT PUBLISHING COMPANY

INSIGHTS (Elementary Science)

SCIENCE FOR LIFE AND LIVING

(Elementary Science)

MATH TRAILBLAZERS

(Elementary Mathematics)

Developer's Web Address:

www.math.uic.edu/MSE

MIDDLE SCHOOL SCIENCE & TECHNOLOGY

(Middle School Science)

FOUNDATIONS AND CHALLENGES TO

ENCOURAGE TECHNOLOGY-BASED

SCIENCE (FACETS)

(Middle School Science)

PRIME SCIENCE (Grades 6-10)

(High School Science)

BSCS BIOLOGY: A HUMAN APPROACH

(High School Science)

CHEMCOM: CHEMISTRY IN THE COMMUNITY

(High School Science)

INSIGHTS IN BIOLOGY

(High School Science)

contact (Elem. and Middle Schools): Dan Dimitrofs

phone: 1-800-542-6657 ext 1125

contact (High School): Joe Haverland phone: 1-800 542-6657 ext 1120 web address: www.kendallhunt.com KEY CURRICULUM PRESS

INTERACTIVE MATHEMATICS PROGRAM (IMP)

(High School Mathematics)

developer's web address:

www.mathimp.org

CALCULUS: CONCEPTS AND APPLICATIONS

(High School Mathematics)

DISCOVERING GEOMETRY

(High School Mathematics)

contact: Path DiPietropolo

phone: 1-800-338-7638 ext 213, or

1-508-634-3872

web address: www.keypress.com

MATH LEARNING CENTER (MLC)

VISUAL MATH

(Middle School Mathematics)

BOX IT OR BAG IT MATHEMATICS

(Elementary Mathematics)

OPENING EYES TO MATHEMATICS

(Elementary Mathematics)

contact: Ardys Miller

phone: 1-800 575-8130

web address: www.mlc.pdx.edu

This information was updated on September 24, 1999.





SCOTT FORESMAN/ADDISON WESLEY PUBLISHING COMPANY

INVESTIGATIONS IN NUMBER, DATA, & SPACE

(Elementary Math)

web address:

www.awl.com/dsp/MainPages/Invest.html

developer's web address:

www.terc.edu/investigations/index.html

CONNECTED MATHEMATICS

(Middle School Mathematics)

developer's web address: www.msu.edu/cmp

contact: Jim O'Gara

address: P.O. Box 138, Marshfield, MA 02050

phone: 1-800 800-3014 web address: www.sf.aw.com

PEARSON CUSTOM PUBLISHING (formerly Simon &

Schuster

INTEGRATED MATHEMATICS (SIMMS): A MODELING APPROACH USING TECHNOLOGY

(High School Mathematics) developer's web address: www.montana.edu/~wwwsimms

contact: Lynette Felix phone: 1-800-693-4060

web address: www.simmsnet.com

SOUTH-WESTERN PUBLICATIONS:

(THOMPSON LEARNING - DISTRIBUTOR)

SCIENCE LINKS (High School Science)

MATHEMATICS: MODELING OUR WORLD

(High School Mathematics)

BIOLOGY: A COMMUNITY CONTEXT

(High School Science)

APPLICATIONS IN BIOLOGY/CHEMISTRY

(High School Science) contact: Steve Foley

phone: 1-877-430-0483 ext 8045 web address: www.swep.com

UNIVERSITY OF ALABAMA

INTEGRATED SCIENCE

(Middle School Science) contact: Chris Theriot

address: University of Alabama/CCET, Box 870167, Tuscaloosa, AL 35487-0167

phone: 1-800 477-8151 web address: www.ccet.ua.edu

UNIVERSITY OF HAWAII

DEVELOPMENTAL APPROACHES IN SCIENCE, HEALTH, AND TECHNOLOGY (DASH)

(Elementary Science)

web address: www2.hawaii.edu.crdg/

science/dash/dash.html

FOUNDATIONAL APPROACHES IN SCIENCE TEACHING (FAST)

(Middle School Science)

web address: www2.hawaii.edu.crdg/

science/fast.FAST.html phone: 1-800 799-8111

web address:

www2.hawaii.edu/crdg/



VISMT





U.S. Department of Education
Office of Educational Research and Improvement (OERI) Netional Library of Education (NLE)
Educational Resources Information Center (ERIC)

REPRODUCTION RFI FASE

- 1	(Specific Document)			
I. DOCUMENT IDENTIFICATION	ON:			
a romant court	is took and Technical to the standard of the s	clock froden grent currici	ilun	
Author(s):				
Corporate Source:		Publicati	on Date:	
II. REPRODUCTION RELEAS	E:	·		
and electronic media, and sold through the reproduction release is granted, one of the fol	EKIC Document Reproduction Service (FDF	ade available to users in microfic IS). Credit is given to the source	he, reproduced paper copy of each document, and,	
The sample sticker shows below will be afficed to all Lovel 1 documents	The woled neceta voxes obspire and woles are remained to all the or beating		cker ahown below will be I Level 28 documents	
PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY	PERMISSION TO REPRODUCE AN DISSEMINATE THIS MATERIAL IN MICROFICHE, AND IN ELECTRONIC M FOR ERIC COLLECTION SUBSCRIBERS HAS BEEN GRANTED BY	D PERMISSION DISSEMINAT	TO REPRODUCE AND TE THIS MATERIAL IN Y HAS BEEN GRANTED BY	
Sample	Sample	- ———————————————————————————————————	mole	
TO THE EDUCATIONAL RESOURCES iNFORMATION CENTER (ERIC)	TO THE EDUCATIONAL RESOURCE : INFORMATION CENTER (ERIC)		70 THE EDUCATIONAL RESOURCES !NFORMATION GENTER (ERIC)	
1	2A	2B		
Level 1	Lovel 2A 1		Level 2B	
ZÍ				
Chack here for Level 1 release, permitting reproduction and dissemination in microfiche or other ভাষতি ৰাজীয়েছা media (e.g., checironic) and paper copy.	Check here for Lavel 2A release, permitting repr and dissemination in microfiche and in electroni for ERIC archival collection subscribers of	inedia reproduction and dis	ान्त्र 28 तिकारक, parmirting semination in microfiche only	
Doc If pamission t	आसनाहि भ्यो be processed as indicated provided reproduc o reproduce is granted, but no bus la chacked, decument	lion quality permits, spill be processed at Lavel 1.		
as indicated above. Raproduction from contractors requires permission from	sources information Center (ERIC) nonexclusifrom the ERIC microfiche or electronic med the copyright holder. Exception is made for n ators in response to discrete inquiries.	a by carsons other than FRIC e	mniovage and its evenos	
Sign Signeture Soufre Coffee	Pri	Red Name/Position/Title: F HADDE	,	
please		Telephone: FAX:		
The state of the s	E1	4eli Addroosi: Dete:		